(i) at least one first portion which is an enzyme selected from the group consisting of penicillin G amidase, penicillin V amidase, β-lactamase, alkaline phosphatase, carboxypeptidase G2, carboxypeptidase A, cytosine deaminase, nitroreductase, diaphorase, arylsulfatase, glycosidase, β-glucosidase, and β-glucuronidase; and

(ii) at least one second portion which comprises a monoclonal antibody or an antigen binding fragment thereof that binds said first component to a tumor-specific antigen on a tumor cell;

wherein said glycoprotein or conjugate thereof comprises at least one carbohydrate complement comprising at least one exposed carbohydrate residue selected from the group consisting of mannose, galactose, N-acetylglucosamine, N-acetyllactose, glucose and fucose; and

(b) a second component comprising a non-toxic prodrug that is subsequently cleaved into a tumor cytotoxic drug by said enzymatic activity of said first component,

wherein said pharmaceutical kit lacks an additional component that affects clearance of said first component and wherein each of said first and said second components is in a pharmaceutically acceptable vehicle.

49. (Amended) A kit as claimed in claim 37, wherein said monoclonal antibody or said antigen binding fragment thereof is humanized.

51. (Amended) A kit as claimed in claim 37, wherein said monoclonal antibody is the monoclonal antibody BW 431/26 or an antigen binding fragment thereof.

58. (Amended) A method of treating a tumor in a subject, comprising:

(a) administering to said subject in a first step, a first component comprising a bifunctional fusion glycoprotein or conjugate thereof comprising

(i) at least one first portion which is an enzyme selected from the group consisting of penicillin G amidase, penicillin V amidase, β-lactamase, alkaline phosphatase, carboxypeptidase G2, carboxypeptidase A, cytosine deaminase, nitroreductase, diaphorase, arylsulfatase, glycosidase, β-glucosidase, and β-glucuronidase; and

(ii) at least one second portion which comprises a humanized monoclonal antibody or an antigen binding fragment thereof that binds said first component to a tumor-specific antigen on a tumor cell;

wherein said glycoprotein or conjugate thereof comprises at least one carbohydrate complement comprising at least one exposed carbohydrate residue selected from the group consisting of mannose, galactose, N-acetylglucosamine, N-acetyllactose, glucose and fucose; and

(b) administering to said subject in a second step, a second component comprising a non-toxic prodrug that is subsequently cleaved into a tumor cytotoxic drug by said enzymatic activity of said first component,

wherein said method excludes the administration of an additional component that affects clearance of said first component and wherein each of said first and said second components is in a pharmaceutically acceptable vehicle.